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1
          IN THE DISTRICT COURT OF DOUGLAS COUNTY, NEBRASKA
 2
     THE STATE OF NEBRASKA,
                                               CR16-1634
                                         )
                                         )
 3
               Plaintiff,
                                            PARTIAL TRANSCRIPT
 4
                                              OF PROCEEDINGS
          V.
                                         )
                                              VOL. I of I
 5
     CHARLES M. SIMMER,
                                            (Pgs. 1-100, incl.)
               Defendant.
 6
 7
               Proceedings had before the HONORABLE THOMAS A.
 8
 9
    OTEPKA, JUDGE, AND A JURY, in Omaha, Nebraska, on March 1,
10
     2018.
11
12
                         APPEARANCES
13
14
    For the Plaintiff: Ms. Amy G. Jacobsen
                         Mr. James M. Masteller
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                         Deputy Douglas County Attorneys
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    For the Defendant:
                         Mr. Thomas C. Riley
                         Douglas County Public Defender
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                         Ms. Christine A. Mori
                         Assistant Public Defender
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                         H05 Civic Center
                         Omaha, Nebraska 68183
21
                         (402) 444-7175
22
23
24
25
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1
          Q
               And he opted to use that number; correct?
 2
               That's my understanding.
          Α
 3
               Doesn't appear that he used any average in the
          Q
    middle on K1 like he did on K3?
 4
               That's -- that's my understanding of his previous
 5
     description of how he chooses the numbers for reporting. I
 6
 7
     don't have the decision-making process broken down and the
 8
    materials provided.
 9
               All right. 'Cause there are none, right, that
10
     you're aware of?
11
               I'd be happy to review them. If we do have them,
12
     I don't recall seeing them.
13
               MR. RILEY: Okay. That's all.
14
               THE COURT: Cross?
15
                          CROSS-EXAMINATION
16
     BY MS. JACOBSEN:
17
               In the materials you received how many pages of
18
     numbers like this were the TrueAllele results?
19
               There are two of those tables for each evidentiary
          Α
20
     item evaluated, so I think there's six total pages. Some of
21
     them might have gone on -- for the doorknob and the spindle,
22
     they might have gone on to two additional pages as well.
23
               You hold a bachelor's degree in computer science;
24
     correct?
25
          Α
               Yes.
```

```
1
          Q
               You don't have a degree in mathematics; is that
 2
     true?
 3
               Correct.
          Α
               And you don't have a degree in statistics?
 4
          Q
               I don't.
 5
          Α
               In fact, you've taken only one college statistics
 6
 7
     class; is that true?
               One named statistics, correct.
 8
          Α
 9
               And how many hard science classes have you taken?
          Q
10
     And by "hard science," I'm meaning biology, chemistry,
11
     things like that.
12
               I got AP credit for physics, so I never had to
13
     take that in college.
14
               So AP credit, you took that in high school?
15
               I did.
          Α
16
               College credit in high school?
          Q
17
               Yes, ma'am. And I took a year of chemistry, I
18
     took a year of anatomy and physiology, I took a semester of
19
    microbiology. I assume you mean like laboratory science --
20
          Q
               Yes.
21
          Α
               -- courses?
22
               I took a year of -- or, excuse me, a semester of
23
     biochemistry. There might be others.
24
               So you don't consider -- while you consider
25
     yourself a computer scientist, you don't consider yourself
```

```
another kind of scientist?
 1
 2
               I don't know where I fit in this world.
 3
               All right. Fair enough. You've never worked in a
          Q
     DNA lab; is that true?
 4
 5
               I have not.
          Α
               So you've never done the extraction and the work
 6
 7
     that you would do in a wet lab, like what Mellissa Helligso
 8
     was testifying about, doing the actual extraction of the DNA
     and doing the runs to get the data; is that true?
 9
10
          Α
               Correct.
11
               The only thing you've ever done is reviewed some
12
     of that data; correct?
13
          Α
               I don't mean to minimize it, but, yes.
14
               And your training to review that data came from
          Q
15
     where?
16
               On-the-job experience, attending conferences and
          Α
17
     workshops.
18
          Q
               Have you done any research?
19
               I have.
          Α
20
               Have you written and published any articles other
21
     than the letter to the editor that was just published this
22
     year?
23
          Α
               I haven't published any peer-reviewed research
24
     articles.
25
               Have you applied for any government grants to do
          Q
```

```
1
     research in the area that you've testified about?
 2
               I've been -- not personally, no, certainly not as
          Α
 3
     a principal investigator.
               Do you hold any positions at colleges or
 4
    universities teaching in this area?
 5
               I give talks. They're not formal positions.
 6
 7
               And you don't have any post-graduate degrees;
          Q
 8
     correct?
               I do not.
 9
          Α
10
               What kind of experience do you have with Bayesian
          Q
11
     systems like the one TrueAllele is? I'll ask that question
12
     first:
             TrueAllele is a Bayesian system; correct?
13
          Α
               It utilizes some Bayesian statistics.
14
               What kind of experience do you have in Bayesian
          Q
15
     systems?
16
               Between coursework and reviewing probabilistic
          Α
17
     genotyping systems, including TrueAllele, that's my
18
     experience.
19
               And your coursework, you've never taken a class
          Q
20
     specifically related to Bayesian systems; is that correct?
21
               No, I'd say my course on machine learning was
          Α
22
     almost entirely Bayesian.
23
               And you've never -- have you ever read a book on
24
     Bayesian systems?
25
               Like a 300-page textbook?
          Α
```

```
1
          Q
               Yeah.
 2
               I typically don't read whole textbooks.
 3
               So your experience working on actual systems or
          Q
     looking at actual systems is your experience with looking at
 4
     TrueAllele; true? And perhaps STRmix and some of the
 5
     others?
 6
 7
               No, I don't have experience looking at TrueAllele.
          Α
 8
     I mean, as we've discussed, it hasn't been opened.
               In fact, this idea of looking at the source code,
 9
          Q
10
     that's not actually something you'd be trained to do as far
11
     as looking at the TrueAllele system; is that correct?
12
               I -- as if there were a training program for
13
     reviewing?
14
                    I mean, if you took advantage of the
15
     opportunity to be given to look at this, would you even be
     the one best suited for reviewing that system?
16
17
               I have conducted similar reviews for other systems
18
     that have been considered productive.
19
               Have you ever built any software systems?
          Q
20
               Yes.
          Α
21
               And you certainly don't consider yourself an
22
     expert in Bayesian science; is that fair?
23
               I understand the definition of expert varies
24
     widely throughout courts.
25
               And the software that you've -- you say you have
          Q
```

```
1
     built some software systems. Do those comply with the
 2
     guidelines that you're suggesting TrueAllele needs to comply
 3
     with?
               The ones that don't exist?
 4
          Α
               Yeah, the ones that you're talking about ought to
 5
          Q
    be created here.
 6
 7
               They don't.
          Α
 8
          Q
               Okay. Because those guidelines don't exist,
     that's the critical point. There aren't any guidelines
 9
10
     right now; is that true?
11
               I don't develop probabilistic genotyping systems,
12
     so the software --
13
               That's not my question. There aren't guidelines
          Q
14
     that exist right now, isn't that the bottom line of your
15
     testimony? The problem is there aren't guidelines set up
16
     that you think ought to be?
               I believe there should be standards that aren't.
17
18
     Those are standards for systems that I don't develop.
19
               I understand that. Would you agree the guidelines
          Q
20
     that you think are the correct guidelines to follow are not
     in existence?
21
22
          Α
               Correct.
23
               You would agree that Perlin, Dr. Mark Perlin, is
24
     an expert in Bayesian systems and the genotyping we're
25
     talking about?
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